

Maturing Economic Transition: Economic Change and Environmental Repercussions

Rightly, much has been made of Mongolia's ecological and social uniqueness in discussing the country's economic performance (Box 1). Mongolia's remote location; its climate, which requires relatively large energy investments and constrains agricultural productivity; the thinness of its rural population and markets, and its nomadic past and present are well known to most with an interest in the country. The broad links between these factors and the direction of environmental impacts have also been sketched under the centrally planned era and the recent transition decade.⁴

To summarize the principal ones, they can be largely structured around (i) barriers to the mobility of livestock, which more than anything else determine the overall conditions of pasturelands; (ii) pressure on unique ecosystems;⁵ (iii) degree of willingness and ability of Mongolia's society to maintain and add to urban environmental and public health infrastructure; and (iv) unit cost of energy provision. All of these are reviewed and updated in the sections that follow. In addition, this analysis addresses some recent developments that have far-reaching and often complex environmental repercussions. The opening of the Mongolian economy to the People's Republic of China and Organisation for Economic Co-operation and Development countries has led not only to changes in the structure of the national herd and the rapid expansion of mining and mining exploration—both well known—but also to the emergence of markets for scrap metal, for instance, which is much less well known. Similarly, the interplay of foreign investment in mining, loss of traditional rural earning opportunities, and other factors are behind the explosion in informal gold mining that started only several years ago but which has already changed the dynamics of rural employment and the pattern of population settlement in several regions of Mongolia, apart from having environmental repercussions.

⁴ See ADB (2001a) for a historical and cross-country perspective.

⁵ Mongolia provides a good illustration of the notion that uniqueness of ecosystems can be substantively linked to uniqueness of lifestyle.

Box 1

Geographical Reminders

Mongolia is located at three or more ecological crossroads. Its territory is divided into three hydrological basins: (i) Pacific basin in the East; (ii) Arctic Ocean basin around the Selenge river in the North, which also contains the second largest freshwater lake in Asia, the Khovsgol; and (iii) Central Asian Internal Drainage basin, containing Central Asia's most important wetlands, the shallow lakes of Uvs, Khar Us, Khar and Khyargas). In terms of vegetation, in Mongolia the Siberian coniferous taiga forest (with permafrost) meets high-altitude grasslands (steppes) and, further to the south, the great Gobi Desert. Also, Mongolia is covered by two out of three major waterfowl flyways in the Asia and Pacific region.

Bioclimatic Zones of Mongolia

Zone	Area (million square kilometers)	Percent of Total Area
Desert	0.297	19
Desert steppe	0.329	21
Steppe	0.406	26
Forest steppe	0.125	8
Boreal forest	0.063	4
Montane	0.344	22
Total	1.564	100

Source: Ministry of Nature and Environment.

Macroeconomics

Much has been said about the downside of Mongolia's economic transition during its first decade and efforts to counter it, particularly in recent years. Little point would be served by revisiting this material. It is enough to say that gross domestic product continues to grow, but at a slow rate. Inflation remains contained (4.7% in 2003), and trade continues to expand (exports in excess of \$600 million per annum for the first time, with the share of mining increasing in importance,⁶ although the trade balance continues to deteriorate). Employment creation has been the Achilles heel of the economy for some time. The skepticism expressed in 2001 about the growth prospects of the pastoral sector remains. Agriculture accounted for 23.5% of gross domestic product in 2002, against 38.0% in 1995, and employment in agriculture is now down to 45.0% of the total and possibly less,⁷ with the difference taken up by the service sector (25.0% in 2002, against 17.0% in 1995). On the positive side, there are increasing reasons to abandon the notion that mining cannot be a source of growth and the driver of local and possibly also broad-based development. The flow of money generated by informal mining in Mongolia has had a positive impact well outside the mining areas themselves (with important qualifications listed in later paragraphs). The trading and service sector that seemed of minor importance in the mid-1990s has become the single largest constituent of the country's gross domestic product (without even counting the black economy).⁸ This sector's environmental repercussions are varied and spill into areas such as solid waste management, structure of demand for urban

⁶ Metals, dominated by gold and copper, accounted for 49% of total exports in 2003. Fast-expanding gold exports (official production worth \$137 million in 2003) alone were 2.3 times greater than all food imports. The idea that cushion against external vulnerability has grown thicker in recent years is casting some doubts on the justification of the policy of greater domestic self-sufficiency in grains. (While wheat production is up from 142,000 tons in 2000 to 165,000 tons in 2003, this is still less than one fourth of what it was at its 1980s peak.) The figure of \$137 million compares with some \$65 million worth of all agricultural exports in 2003. The value of production by the informal gold mining sector in 2003 was put at around \$75 million (Mongolian Business Development Agency 2003b).

⁷ Official figures put the number of people employed in mining and quarrying at 24,000 in 2002. Recent survey-backed work (Mongolian Business Development Agency 2003b) puts the figure of individuals engaged in small-scale mining in 2003 at over 100,000 (some on a part-time basis). Thus, the 391,000 people officially listed as employed in agriculture is almost certainly a serious overestimate or at least a misleading number hiding the part-time nature of much of agricultural employment.

⁸ Industrial composition, service sector (trade, etc.), and transport (plus storage, etc.) taken together accounted for over 40% of the country's gross domestic product in 2002, and this share is further increasing. Mongolia's economy today is indeed dramatically different from what it was only a decade ago.

environmental services, and design of environmental regulation. On balance, Mongolia seems to have been a net beneficiary of globalization.⁹ Bloated public bureaucracy continues to be a concern¹⁰ and a major consideration whenever calls to increase staffing strengths of environment-related agencies are made.

The assessment made in the 2001 CEA of the environmental repercussions of the temporary deindustrialization of Mongolia continues broadly to hold. Deindustrialization has resulted in increased pressure on the commons, as many former government and industry employees turned to the land and forests for their livelihood (some subsequently switching to underground resources, which is discussed later). Nonetheless, by now, deindustrialization has largely run its course, and some resumption of industrial production is evident, although not in the original locations. Many *aimag* (province)-level and most *soum* (district)-level processing facilities continue to be nonfunctional and, in many cases, probably past the point where they could be rehabilitated, even if market circumstances justified this. New economic activities have been vital but have created their own environmental problems (e.g., tanneries in and around Ulaanbaatar). Elsewhere, doubts common in the mid-1990s regarding the existence of entrepreneurship, especially at the *soum* level, are beginning to melt, due to several convincing demonstrations of the local capacity to adapt.

⁹ Official figures illustrate the importance of exports to the People's Republic of China of unprocessed animal products (either a boon or a curse, depending of the view taken of the competitiveness of local processing). Other trends, such as increasing exports of metal scrap to the People's Republic of China, are unrecorded in official statistics but documented in detailed studies (World Health Organization 2002b).

¹⁰ 44,000 people were employed in public administration and defense in 2002, up from 31,500 in 1999. When education, health, and community services are added, the total employment in the state sector rose from 134,000 in 1999 to 164,000 in 2002 (i.e., about 19% of total employment). Many government agencies are part of the picture. "One public agency per 350 Mongolians" is how ADB (2004) put it.

Population, Mobility, and Regional Balance

The temporary outflow of urban residents to rural areas following the privatization of the national herd in the early 1990s came to a halt by 1995, and the long-term trend of urbanization has since resumed. By 2003, the urban population had surpassed its 1990 peak percentage of about 57%. The capital, with over 800,000 people, now accounts for more than one third of the country's population. Urban registration fees in force in Ulaanbaatar until 1995–2003 are no more,¹¹ and there is every indication that the city's growth will continue. New population centers, often far more numerous and economically active than soum centers, have sprung up in the vicinity of gold mining operations (e.g., in Zaamar), raising questions about existing patterns of social service delivery and the direction of regional development.

The high unit transport cost in a vast and thinly populated country was easily identified in the 2001 CEA as a factor posing economic as well as environmental challenges. Today, there is little reason to substantially change this assessment. Greater reliance on market forces in the last decade and the disappearance of fuel and other subsidies continue to move economic resources toward those commodities with high value-to-volume or high value-to-weight ratios, most notably cashmere and gold (Box 2). It is also clearer now than it was a few years ago that location of economic activities in Mongolia cannot be discussed in isolation from the topic of administrative and fiscal decentralization. A recent World Bank assessment (World Bank 2002) provides sufficient grounds to believe that major improvements are possible and indeed necessary in the way budget resources, including those for local environmental management, are generated and managed. The passage of the new Public Sector Financial Management Law in 2003 is a clear improvement. However, by itself, the law is probably insufficient to bring about fundamental change in the local capacity to manage the environment.

¹¹ The fees were cancelled by the Government in June 2003. The existence of the fees during 1995–2003 helps explain underestimation of the capital's true population in official statistics until now, as well as associated problems of social service delivery. Bulganchimeg (2003) discusses the evolving situation on Ulaanbaatar's fringes. By now, registration remains not so much a duty as a condition of access to social services.

Box 2

Regional planning and environmental impacts in Mongolia

The regional development proposals of the Mongolian Government (“Regional Development Concept”) of early 2000s favor re-centralization of population and service provision along a small number of key axes. Although rightly criticized for a tendency to *legislate* poles of economic activity they recognize the fundamentally weakened case for decentralized provision once the full economic cost of fuel and other inputs is allowed to influence the allocation of resources. The question of interest to this report is whether a more market-driven approach to regional development, agreed to be desirable on economic grounds [see PDP Australia (2003)], would be also more sensible from an environmental management point of view. The answers are not straightforward. In general, market-drivenness is a friend of concentration of economic activities and population. This would be bad for pasture management, but might be good for dealing with urban environmental problems. Even that is not certain, however, given recent experience with the management of *gher* areas around major Mongolian towns, especially Ulaanbaatar. Concentration may create an opportunity for cost-effective action. Absent such action, however, an opportunity easily transforms itself into a concentrated environmental (and social) problem.

Source: Asian Development Bank.

Poverty and Health

Latest official figures (2003) indicate modest improvements in the worrisome indicators picked up in the 1996 and 1998 poverty surveys. On the health side, substantive work has now been undertaken by Mongolia’s Ministry of Health (MOH) on the links between changing environmental conditions and the health status of Mongolia’s population, identified in the 2001 CEA as an area of particular weakness. The results (Public Health Institute 2003) are less clear-cut than prevailing notions about how serious these impacts are. All is not well, but the situation is not critical. In contrast, recent work conducted on the exposure of small-scale miners to mercury (Japan International Cooperation Agency 2003) has zeroed in on a major public health hazard (Minamata disease). Partial data have also become available on the arsenic content of Gobi water (Bolormaa, et al. 2003), indicating the existence of a potential problem.

Environment and Mongolia: 12 Years After Rio

It is now more than a decade since Mongolia's entry into the world of international environmental discussion, a process nurtured by a broader desire for opening to the world at large, beyond the former boundaries of the Council for Mutual Economic Cooperation. The integration of Mongolia into the environmental mainstream is now almost complete. Mongolia is an active member of the United Nations system and a signatory of most international environmental conventions. In some of these, Mongolia plays a prominent role (e.g., hosting the Asian Regional Thematic Program Network 5 of the United Nations Convention to Combat Desertification (CCD) and meetings of Asian focal points of the United Nations Framework Convention on Climate Change [UNFCCC]). The notable gaps include nonratification of the Kyoto Protocol and absence from Mongolia of the Aarhus and Espoo Conventions.¹² Improved global awareness and openness has served Mongolia well, among other things generating substantial funding by GEF and other development partners for environment-related activities. (See Appendix 6 for a list of development partner-financed environment-related projects since 2000.) Also as a result of this funding, many prominent local environmental specialists have been able to avoid, or partly avoid, low-paying routine government positions. More importantly, Mongolia's population, especially people in Ulaanbaatar, has gained a much better understanding of how the outside world manages environments, as well as how others structure assistance to developing nations such as their own.

The international approach to debating environmental problems has become commonplace in Mongolia and is evident in the language and framing of domestic approaches to dealing with environment-related issues. Yet, the gap between the apparent sophistication of some of the work on environmental management, in particular in support of international environmental conventions, and the world of getting things done has grown larger. The former reflects the tradition of scientific training in Mongolia, as well as received notions about what the role of science is. Modeling results multiply and development partners neither question these nor demand peer reviews. Ecology theoreticians communicate poorly with socioeconomically minded policy-makers and field staff. Policy makers, on the other hand, rarely ask hard analytical questions, especially those relating to efficiency of resource use. And like everywhere else, getting things done in Mongolia

¹² Aarhus Convention of 1998 on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters and the 1991 (Espoo) Convention on EIA in a Transboundary Context, both featuring importantly in other transitional economies of Asia.

is difficult because it demands simultaneous and often unpopular action on many different fronts.

The pre-1994 Government actively built further on its 2000 Program for Good Governance for Human Security, and the pace of legislative amendments and formulation of new programs was unrelenting. Positive because it placed environmental concerns in the limelight, the approach appears nevertheless to have devalued somewhat government approval. This has far too often been given to policies and programs that were not digested, could not be monitored, and were nonbinding.

The October 2004 action plan of the new Government introduces few major changes in environmental policy. The single most significant change would probably be a more laissez-faire approach to regionalization. Official positions remain generally supportive of the environment. No new positions have yet been articulated on the use of market-based elements of environmental policy (e.g., park entrance fees) or hard tariff-related issues (water and wastewater). Genuine policy differences of the pre-2004 election period on matters wrongly considered to be of little environmental importance, such as an approach to crop production (where an interventionist approach was gaining an upper hand) are yet to be translated into distinct new policies. Continuity is apparent in the commitment to more fully use existing surface water resources (for electricity generation and other uses) and to support renewable energy development, as well as its thermal segment. Urban zoning is recognized as a priority, and emphasis is placed once more on the construction of apartment buildings as a way of also easing urban environmental problems. A major commitment is made to provide all soum centers and settlements with safe drinking water. The action plan speaks of intensifying land reform, including a new possibility of privatizing land near markets and roads and issuing long-term leases for lands near towns, to support meat processing and dairy industries. The plan commits the Government to opening access to environment-related information. It renews calls for international cooperation to fight desertification and calls for active reforestation by local citizenry (without, however, saying anything new about how to stop illegal cutting of standing forests). Technical remedies (chemical poisons) to control the population of pastureland rodents are favored. Little is said about environmental monitoring, about its difficulties in the countryside, about how to finance environmental management, about the application of environmental law and the role of courts, and about a number of other issues described in this analysis.